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## **Major Erosional Surfaces in the Zaïre Turbidite System (ZaïAngo Project)**

Detailed analysis of HR seismic data acquired in the Zaïre Turbidite System ("ZaïAngo" project, TFE/IFREMER), allowed to define three E-W oriented fans. Each of these fans, referred to as Northern, Southern and Axial Fans from the oldest to the youngest, comprises different groups of channel/levee systems. A restricted area, covering the transition from the Northern Fan to the Axial Fan, has been intensively investigated to identify the major discontinuities and thus the relationships between the groups of channel/levee systems.

Four major discontinuities were identified on the seismic data set:

The first discontinuity (E1) is interpreted as an erosional surface truncating at least 80 meters of the underlying group of channel/levee systems belonging to the Northern Fan. E1 displays a wide depression at least 2000 km<sup>2</sup> infilled with lobate units of about 100 to 700 km<sup>2</sup>.

The second discontinuity (E2) caps the former infill units and is overlain by groups of channel/levee systems progressively migrating northward from their E-W initial position.

The third discontinuity (E3) truncates the former units and displays a depression partially filled with lobate units. E3 is capped by the last group of Northern channel/levee systems migrating back to the E-W position.

The earliest discontinuity (E4) corresponds to an erosional surface separating the Northern and Axial Fans.

Erosional events of such a magnitude are difficult to envisage at abyssal depths, unless they are considered to sign migration processes at a regional scale, probably at the scale of groups of channel/levee systems.